

CLAIMS

1. (Original) An energy converter comprising:

a heat source for emitting electromagnetic radiations;

and

5 a radiation cut portion for cutting down infrared radiations, of which the wavelengths are longer than a predetermined wavelength,

wherein the radiation cut portion is a woven or knitted mesh of metal wires, openings of the woven or knitted mesh 10 having an aperture size that is smaller than the predetermined wavelength.

2. (Original) The energy converter of claim 1, wherein the openings have a substantially square shape, each side of 15 which is shorter than 1 μm .

3. (Original) The energy converter of claim 1, wherein the metal wires have a diameter of 2 μm or less.

20 4. (Currently Amended) The energy converter of claim 1,

wherein the metal wires are made of a refractory material having a melting point higher than 2,000 K.

5. (Original) The energy converter of claim 4, wherein
5 the refractory material is at least one material selected from the group consisting of tungsten, molybdenum, rhenium, tantalum and compounds thereof.

6. (Currently Amended) The energy converter of claim 1,
10 wherein the heat source is made of tungsten or a tungsten compound and operates at a temperature of 2,000 K or more.

7. (Currently Amended) The energy converter of claim 1,
wherein the radiation cut portion is a stack of woven or
15 knitted metal wire meshes, and

wherein the stack of woven or knitted meshes is thick enough to limit the emission of the electromagnetic radiations with the predetermined wavelength.

20 8. (Currently Amended) The energy converter of claim 1,

wherein the predetermined wavelength is 780 nm.

9. (Original) A method of making an energy converter,
the method comprising the steps of:

5 preparing a heat source that emits electromagnetic
radiations;

 preparing a radiation cut portion that cuts down infrared
radiations, of which the wavelengths are longer than a
predetermined wavelength; and

10 arranging the radiation cut portion such that the
radiation cut portion faces at least one side of the heat
source, from which the electromagnetic radiations are emitted,

 wherein the radiation cut portion is a woven or knitted
mesh of metal wires, openings of the woven or knitted mesh
15 having an aperture size that is smaller than the predetermined
wavelength.

10. (Original) The method of claim 9, wherein the step
of preparing the radiation cut portion includes the step of
20 processing the metal wires while applying tensile stress to

processing the metal wires while applying tensile stress to the wires.

11. (Original) An apparatus comprising:

the energy converter of claim 1;

5 a translucent bulb for shielding the energy converter from the air; and

means for supplying electrical power to the heat source included in the energy converter.

10 12. (Original) The apparatus of claim 11, wherein the apparatus functions as an illumination source.

13. (Original) A radiation cut member for cutting down infrared radiations, of which the wavelengths are longer than 15 a predetermined wavelength,

wherein the radiation cut member is a woven or knitted mesh of metal wires, openings of the woven or knitted mesh having an aperture size that is smaller than the predetermined wavelength.